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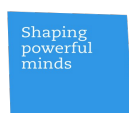
How Do Facebook Users Interact And What Are The Underlying Reasons That Trigger These Interactions

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ABSTRACT

This research was conducted to understand how Facebook users interact and the underlying reasons for doing so with a focus on one-to-mass communication interactions. Different methods and sources were used to generate accurate and valid insights. It was discovered that liking, groups, commenting, events and sharing are essential interactions, whereby liking, commenting and sharing were investigated in more detail. This investigation proves that emotions do trigger these three interactions; The most influencing emotions are Surprise/Wonder, Deep Respect/ Impressiveness and Fun/Joy. Moreover a variety of specific factors that trigger each of the interactions are revealed.

Keywords

Facebook, Social Network Behavior, Online Interactions, Emotions

1. Introduction

Nowadays a continuously increasing number of people use social networks. The social network with the highest number of active users is clearly Facebook, as indicated by Statista¹ (see appendix 1). In a different study the Pew Research Center² (2004; see appendix 2) found that Facebook has about 2.5 times as many active users as the social networks with the second highest amount of active users (LinkedIn; Pinterest). In total numbers Statista (2015) indicates that Facebook has reached a peak of 1,441 billion active users in Q1, 2015. Additionally it illustrates that Facebook was growing at around 50 million users per quarter since Q3 in 2008 (100 million user at that time; see appendix 3). These facts indicate that Facebook is the dominant social network, with the highest potential for both marketers as well as for Facebook users themselves.

Marketers are able to reach a great amount of people by using Facebook and Stelzner (2013) found out that 86% consider social networks important for their businesses with the top benefit of increased exposure for their businesses. Additionally another study (Laufer, Kahlehoff, Scissons, 2013) discovered that the average value of a brand fan [global brands] was \$174.17 in 2013 (28% increase compared to 2010). Thus there is clearly value in Facebook for marketers. But there is also great value in Facebook for users themselves. This value lies in the social capital. According OECD (2001) social capital can be defined as “networks together with shared norms, values and understandings that facilitate cooperation within or among groups.”. Ellison, Lampe and Steinfield (2011) give a slightly different description. They describe the concept of social capital as the benefits that people receive from their social relationships and

1 Statista is one of the world's largest statistics portals. For more information go to www.statista.com

2 The Pew Research center conducts public opinion polling, demographic research, content analysis and other data-driven social science research. For more information go to www.pewresearch.org

interactions; these include emotional support, exposure to a myriad of ideas and access to meaningful information. Moreover social capital is an integral part of social networks and its structure (Burt, 2005). In order to be able to utilize the highest value for both marketers and users, it is therefore crucial to identify how users interact and the underlying reasons that trigger or enhance these interactions. The understanding of these will enable one to increase the amount of followers [in this study followers are defined as people who interact with one with some extent of regularity]; this in turn enables marketers to gain more fans on Facebook, while it permits users to create bonds in greater quantities and of greater quality with their relationships on Facebook, thus increasing the value of social capital derived from Facebook.

2. Methodology

The research contains four main parts, which deliver the necessary information to answer the following research questions: “How do people interact on Facebook and what are the underlying reasons to do so?”; these four parts consist of:

1. *Literature review*: This secondary research consists of primary and secondary sources. It serves as an overall basis for understanding the kinds of interactions that are available on Facebook, as well as different factors, which induce these interactions. In this section scientific articles from psychological, behavioral and marketing related journals as well as books and guides that were made by marketers are used and serve for two purposes; on the one hand some of this information adveet into the questionnaire so that the information can be tested; on the other hand some of the information is used to validate the findings from the

primary research in the conclusion section.

2. *Qualitative research*: to gain essential insights about Facebook users behavior regarding interactions and underlying reasons for these interactions, in-depth interviews are conducted; Birks and Malhotra (2003) describe these as “an unstructured, direct, personal interview in which a single participant is probed by an experienced interviewer to uncover underlying motivations, beliefs, attitudes and feelings on a topic.”. This is part of the exploratory research and delivers further input (besides the literature review) for the subsequent survey in which different aspects and hypothesis can be tested. To ensure a substantial variety of insights, interviewees from different cultural and professional background are chosen. As according to Kvale and Stein (2008) a sufficient sample size is between 12 ± 10 , the sample size used in the interview is $n=8$. In order to establish a clear overview of insights from those 8 interviews, a repertory grid (Kelly, 1955) is utilized and structured in a way that all topics being interesting for this research are included with sub-topics and one quote and one interpretation of the quote for each of these sub-topics (see appendix 4).

3. *Quantitative research*: The third part of the research involves a cross-sectional structured survey. This means that the study contains a fixed set of closed questions with a range of given answers the participants can choose from and that there is only one sample of respondents and information is obtained only at one point in time (Olsen and George, 2004). This survey was conducted on www.qualtrics.com and the sample size is $n=141$. Due to the amount of respondents, insights generated from the literature review and the qualitative

research can be tested to infer which of these insights are valid for the population and which of them are outliers.

4. *Descriptive Research*: in this ultimate part, correlations between emotions and interactions will be determined in order to accept or reject the hypotheses which were created based on the insights from previous steps. Therefore the data from the survey is analyzed with SPSS³ so that statistical (in)significances are identified. In addition to that correlations between different variables are investigated so that more information beyond the acceptance or the rejections of hypotheses can be revealed.

The overall research is carried out based on the triangulation technique, as it is referred to in the context of psychology and social sciences. Norman K. Denzin (1970), a sociology professor, defined this technique as “the use of two or more different methods in research in order to counter-check the results of each by comparing them to the findings of the other ones.”. Thus the findings in this study should be accurate, valid and reliable.

3. Findings:

In this section the essential findings from each of the four main parts are summarized. More detailed findings can be found in the appendices.

3.1.1 Literature review

The literature review consists of different sources, including scientific articles,

3 SPSS is an analytical program that can be used to perform data analysis and to create tables and graphs. For more information go to www.SPSS.com

articles from marketing websites and blogs, books and newspaper articles and it is conducted in order to obtain data which can directly or indirectly serve to answer the initial research question. The crucial information is summarized below.

Parker and Marketo (2013) created a research, which mainly analyzed how fans interact with businesses and brands and what are the factors and reasons for these interactions so that these can be increased. The principle findings are that the main interactions are likes, comments and shares of [content] posts which are created by the entity which is followed by those fans. To increase these interactions the authors mention seven factors: *give* [e.g. offers, discounts, contests], *advise*, *warn*, *amuse*, *inspire*, *amaze*, *unite*. Due to those factors fans perceive value for themselves and are thus more willing to like, comment and share that content.

Another important finding was made by Viswanath, Mislove, Cha, Gummadi (2009) who figured out that *Facebook's birthday reminder* is an important feature, leading to an interaction which in turn triggers subsequent interactions that might lead to strong relationships.

Moreover Ellison, Steinfield and Lampe (2007) stated that the majority of users utilize Facebook “*to keep in touch with old friends and to maintain or intensify relationships* characterized by some form of offline connection such as dormitory proximity or a shared class.”; this resembles one main reason [*relationships*] why people interact on Facebook.

More factors were researched in the study of Berger and Milkman (2011) about what makes content to go viral. They analyzed articles from the New York Times over a three month period and they have found out that there are five fundamental factors that increase the likelihood of content to be shared; these are *positive*

content, interesting content, surprising or practically useful content, content that is intellectually challenging and long [1500+ words] and high arousal content. According to high arousal content, Berger (2011) discovered that arousal can be stimulated by both *positive [e.g. awe] and negative [e.g. anger] emotions*, as well as by *physical activities*. In this context Mauri, Cipresso, Balgera, Villamira, Riva (2011) determined that *Facebook use is able to evoke “an affective state characterized by high positive valence and high arousal*, leading to a core flow state that might represent a key factor able to explain why social networks are spreading out so successfully.”; this finding may infer that there is a high degree of factors stimulating arousal on Facebook, either spread by Facebook itself or by users, which is not clarified in the research of Mauri et al. (2011) but which verify Berger and Milkman's statement that *arousal supports the transmission of content*. Additionally Neely (2014) mentions that sharing content depends on two dimensions: *“the deep psychological forces that shape our behavior. Then there are the more tangible, quantifiable things that get people to share.”*; interesting in regard to our research is that Neely terms *awe to be the strongest emotional driver* for sharing content, while in regard of tangible factors *images increase sharing of content drastically*.

More motivations and different types of personalities that share content on Facebook are investigated by Brett (2011). According to him the five main motivations that increase sharing, starting with the most dominant one, are *“support a good cause, relationships, self-fulfillment, define ourselves, entertainment”* (see appendix 5). Thus he found out that people share content to support good causes they care about, to connect and stay in touch with people, to feel important and more involved with other people, to give a better understanding

of oneself and to share information that might be of value to their network and thus enriching other people's lives. He also discovered six personalities of sharers, which are: *altruists, careerists, hipsters, boomerangs, connectors and selectives*. To each of these personalities each of the above mentioned motivations is appealing to different extents. Additionally Brett elaborates guidelines to elevate the rate of sharing content; these are: *appealing to consumers motivation to connect to each other, be trustworthy, keep it simple, appeal to your audience's humor, embrace a sense of urgency and listen and react to your audience*.

Part of Brett's research is validated by Cheung, Chiu and Lee (2011), as they also indicate that maintaining *interpersonal inter-connectivity [relationships]* and *entertainment* are significant drivers for interactions; in addition to that they state that “*social enhancement*” which can be defined as the ability to impress or feel important is also another essential driver for interactions on Facebook.

A further study (Park, Kee and Valenzuela, 2009) looked into gratifications for using Facebook groups and found that the prime forces are *socializing, entertainment, self-status seeking, and information*; these findings can be extrapolated to the overall usage and sharing behavior on Facebook.

These findings were once again validated by Baek, Holton, Harp and Yaschur (2011). They researched Facebook users' motivations to engage in link sharing behavior and found that *information sharing* and *entertainment* are essential reasons for doing so; following Baek et al. sharing information includes practical and useful information for others, as well as information to express oneself; entertainment on the other hand includes aspects as being an easy way to stay in touch with one's relationships as well as providing enjoyable or relaxing moments and short distractions in general. This research also revealed that *users who use*

Facebook primarily to share information are more like to share links more often.

In contrast to most researches that were conducted about reasons for using Facebook and social networks in general, Smock , Ellison, Lampe and Wohn (2011) analyzed the motivations for using each interaction or “feature” as they call it; first they identified four significant predictors for using Facebook, which are: “*expressive information sharing, social interaction and habitual pastime, companionship and professional advancement*”. In a subsequent step they matched interaction with these reasons. Thus expressive information sharing involves *a one to many communication feature as wall posts and groups*. Social interaction and habitual pastime are more related to a *one to one communication, which consists mostly of private messages, chatting and commenting*; however Smock et al. found that wall posts were used in this context as well, especially for habitual pastime whose main driver were *birthday greetings*; in regard to *companionship it was found that commenting is negatively related to it* while chatting had not relationship with it, even though Recchiuti (2003) stated the opposite in her research. *Professional advancement was realized by wall posts and private messages* as in this ways bridging capital could be utilized (Burke, Kraut, 2013).

Another interesting fact which Back, Stopfer, Vazire, Gaddis, Schmukle, Egloff and Gosling (2010) determined is that *Facebook users do not self-idealize their profiles, but that their online profiles matches their actual identities*.

Additionally to that Burke, Marlow and Lento (2010) analyzed empirical Facebook data and confirmed that *Facebook users self-reports about factors as time spent on Facebook are matching with actual Facebook behavior*; furthermore their research uncovered that *social network use increases social*

capital and reduces loneliness; directed communication, which includes wall posts, likes, comments and private messages, is important for bonding social capital and supports the reinforcement, maintenance and facilitation of relationships; this study also identified that if Facebook users content consumption is high while the direct communication is not it has the adverse effect on loneliness as it increases.

Regarding privacy issues Debatin, Lovejoy, Horn and Hughes (2009) found that even though Facebook users are well aware of these issues and even though they think their friends post too many details about themselves on Facebook, they still do not tightly control the information they put on Facebook and thus *they are drastically more vulnerable to data mining than they perceive themselves to be*.

3.1.2 Qualitative Research

The essential findings are summarized below. For more details see appendix 4.

The in-depth interviews unveiled that interviewees think of the following activities when asked about their interactions on Facebook:

- *Liking posts*
- *Commenting posts*
- *Sharing other people's posts*
- *private messages*
- *instant chat*
- *Organizing and joining events*
- *Participating passively and actively in Facebook groups*
- *Using Facebook's Birthday reminder for congratulating friends*
- *Creating an Facebook page for one's business*
- *Playing games on Facebook*

Despite determining these interactions among Facebook users, it could be concluded that the ones that were recalled and used the most are: liking, commenting and sharing (accordingly). Furthermore this part of the research

revealed factors and emotions, which influence or trigger the above mentioned interactions. Some of the factors that are considered influential by the interviewees are:

- *post is about field of interest (article about technological innovations, political news, etc.)*
- *to show that you are aware and happy for an update in your friend's life*
- *close relationship to the poster*
- *if a post matches your opinion about a topic*
- *outstanding achievements of friends*
- *if the post is about an issue which you consider important*
- *if somebody posted something about/ with you (e.g. tags you in a picture/comment)*
- *to support a good cause, to show something is important for you*
- *if a post evokes a strong emotion, content might be interesting for your friends*
- *to support and to help friends (e.g. sharing their request for finding an apartment).*

Emotions that seem to be decisive are:

- *Fun/Joy*
- *Excitement*
- *Compassion*

Additionally, interviewees were asked about the Facebook behavior of their friends, which was used as a projective technique; Boddy (2005) explains that „Projective techniques are often used in market research to help uncover findings in areas where those researched are thought to be reluctant or unable to expose their thoughts and feelings via more straightforward questioning techniques.“. Thus the answers to this questions should uncover more information about the interviewee's questions which they would not reveal otherwise. The most interesting answers hereto were the following:

- *Many of my friends post unnecessary private details.*
- *Many of my friends want attention on Facebook.*
- *Most of my friends use Facebook much more than I do.*
- *The majority of my friends behave very differently on Facebook than I do.*
- *Many friends behave on Facebook in a particular way to create a certain image of themselves.*

Ultimately interviewees were asked about additional points which they consider important in regard to Facebook to gain further insights that might support this

study. In that regard the following statements were made:

- *Facebook provides the easiest access to contact people.*
- *It is dangerous to reveal too much information about myself on Facebook.*
- *Facebook is a great tool for networking.*
- *Facebook continuously becomes a waste of time.*
- *Facebook is fake and in many cases does not represent reality.*

All of the above mentioned statements were tested in a subsequent quantitative research.

3.1.3 Hypotheses

Based on the literature research and the qualitative research, the following hypotheses were developed in order to obtain the necessary information to answer the initial research questions:

- 3.1.3.1. **H_1 :** Liking is the most used interaction, commenting the second most and sharing the third most used interaction among the essential interactions.
- 3.1.3.2. **H_2 :** Emotions can trigger essential interactions.
- 3.1.3.3. **H_3 :** Different emotions trigger different interactions.

3.2 Quantitative Research

The essential findings are summarized below. For more details see appendix 6.

For the mean, a 1 [not at all] – 5 [very much] scale was utilized.

Table 1. FB User Interactions

Interaction Type	Total Usage	Mean
<i>Liking people's posts</i>	83%	3,72
<i>Groups as passive users</i>	70%	3,35
<i>Commenting on people's posts</i>	65%	2,88
<i>Joining events</i>	62%	2,84
<i>Sharing people's posts</i>	40%	2,11
<i>Groups as active users</i>	35%	2,39

Table 2. Factors that increase the probability of liking

Statement	Mean
<i>outstanding achievements of friends</i>	3,68
<i>to show that you are aware and happy for an update in your friend's life</i>	3,66
<i>if somebody posted something about/ with you (e.g. tags you in a picture)</i>	3,63
<i>if the post is about an issue which you consider important</i>	3,5
<i>post is about field of interest (e.g. article about technological innovations, political news, etc.)</i>	3,41
<i>if a post matches your opinion about a topic</i>	3,35
<i>close relationship to the poster</i>	3,34
<i>to support a good cause</i>	3,31
<i>to show something is important for you</i>	3,26
<i>if a post evokes a strong emotion</i>	3,03

Table 3. Emotions stimulated by posts that increase the probability of liking

Statement	Mean
<i>Fun/Joy</i>	4,05
<i>Deep Respect/ Impressiveness</i>	3,76
<i>Excitement</i>	3,74
<i>Wonder/Surprise/Awe</i>	3,51
<i>Compassion</i>	2,79
<i>Sadness</i>	2,15
<i>Anger</i>	1,95
<i>Fear</i>	1,68
<i>Guilt</i>	1,67

Table 4. Factors that increase the probability of commenting

Statement	Mean
<i>some highly important events in your friends lifes (graduation, wedding, etc.)</i>	3,54
<i>if somebody posted something about/ with you (e.g. tags you in a picture/comment)</i>	3,43
<i>close relationship to the poster</i>	3,25
<i>to stay in touch with friends</i>	3,12
<i>show that you care about the poster</i>	2,86
<i>to show people that are important to you that you care about them</i>	2,80

<i>post is about field of interest (e.g. article about technological innovations, political news, etc.)</i>	2,53
<i>to show agreement with a post</i>	2,48
<i>if a post evokes a strong emotion</i>	2,47
<i>to show disagreement with a post</i>	2,31

Table 5. Emotions stimulated by posts that increase the probability of commenting

Statement	Mean
<i>Fun/Joy</i>	3,48
<i>Excitement</i>	3,18
<i>Deep Respect/ Impressiveness</i>	3,08
<i>Wonder/Surprise/Awe</i>	3,02
<i>Compassion</i>	2,31
<i>Sadness</i>	2,21
<i>Anger</i>	2,02
<i>Fear</i>	1,64
<i>Guilt</i>	1,54

Table 6. Factors that increase the probability of sharing

Statement	Mean
<i>content might be interesting for your friends/ network</i>	3,06
<i>to support and help friends (e.g. sharing their request for finding an apartment)</i>	2,98
<i>important issues in general</i>	2,75
<i>to direct attention to a certain post (and thus issue, etc.)</i>	2,44
<i>posts that explicitly ask for help not from friends (e.g. somebody is missing, if votes are needed against an unfavourite law.)</i>	2,41
<i>to utilize one's network so that it can help (by sharing your forward the post to all people from your network so that they get aware and can react to the post)</i>	2,29
<i>if a post evokes a strong emotion</i>	2,25
<i>unique and extraordinary posts (e.g. exotic places, outstanding achievements of people)</i>	2,18
<i>to establish an image of yourself</i>	1,65

Table 7. Emotions stimulated by posts that increase the probability of sharing

Statement	Mean
<i>Fun/Joy</i>	2,91
<i>Excitement</i>	2,74
<i>Deep Respect/ Impressiveness</i>	2,74

<i>Wonder/Surprise/Awe</i>	2,69
<i>Compassion</i>	2,12
<i>Sadness</i>	1,90
<i>Anger</i>	1,73
<i>Fear</i>	1,54
<i>Guilt</i>	1,45

Table 8. Other significant statements about Facebook Behavior

Statement	%
<i>Facebook provides the easiest access to contact people.</i>	77%
<i>It is dangerous to reveal too much information about myself on Facebook.</i>	74%
<i>Facebook is a great tool for networking.</i>	62%
<i>Many of my friends post unnecessary private details.</i>	51%
<i>Many of my friends want attention on Facebook.</i>	49%
<i>Facebook continuously becomes a waste of time.</i>	45%
<i>Most of my friends use Facebook much more than I do.</i>	44%
<i>The majority of my friends behave very differently on Facebook than I do.</i>	44%
<i>Many friends behave on Facebook in a particular way to create a certain image of themselves.</i>	41%
<i>Most of my friends reveal too much information about themselves.</i>	37%
<i>Facebook is in many cases "fake" - creating images of people that do not reflect the reality.</i>	37%

3.3 Descriptive Research

In this section the relationships between the main interactions and emotions that trigger these interactions are analyzed.

To determine the relationship between different emotions and the main interactions - liking, commenting and sharing – correlation analyses are performed.

Therefore for *liking*, first the aggregate score for all factors that might increase the probability of liking was calculated and subsequently the correlation analysis was performed between the mean liking interaction score and each of the emotion that may stimulate liking. The results, as can be seen below in table 9, indicate a significant positive correlation between each of the emotions and liking. The

strength of correlation range from very weak but significant to moderate but significant. The correlation coefficient ranged from .185 to .589. The lowest correlation was found between Fear & Guilt and liking ($r = .185, p < .05$). The highest correlation was found between Wonder/Surprise and liking ($r = .589, p < .01$). This shows that Wonder/Surprise has the highest impact on the user probability of liking a post.

Same procedure were applied for commenting; the *results for commenting*, as can be seen below in table 9, indicate a significant positive correlation between each of the emotions and commenting. The strength of correlation range from very weak but significant to moderate but significant. The correlation coefficient ranged from .219 to .557. The lowest correlation was found between Guilt and commenting ($r = .219, p < .05$). The highest correlation was found between Deep Respect/Impressiveness and commenting ($r = .557, p < .01$). This shows that Deep Respect/Impressiveness has the highest impact on users probability to comment a post.

The *results for sharing*, as can be seen in table 9 below, indicate a significant positive correlation between each of the emotions and sharing. The strength of correlation range from very weak but significant to moderate but significant. The correlation coefficient ranged from .258 to .642. The lowest correlation was found between & Guilt and sharing ($r = .258, p < .05$). The highest correlation was found between Wonder/Surprise and sharing. This shows that Wonder/Surprise had the highest impact on the user probability to share a post on Facebook. The following table shows the correlation between different emotions and interactions on Facebook. The table further elucidates the strength and significance of the relationship between the different interactions (liking, commenting, sharing) and

the different emotions that may cause the interaction.

Table 9. Correlation between emotions and interactions (Liking, Commenting, Sharing)

Interaction	Fun/ Joy	Sadness	Fear	Excitement	Deep Respect/ Impressiveness	Wonder/ Surprise	Anger	Compassion	Guilt
Liking	.453**	.374**	.185*	.458**	.535**	.589**	.168*	.424**	.185*
Comment	.530**	.341**	.274**	.517**	.557**	.537**	.372**	.495**	.219*
Sharing	.479**	.379**	.266**	.612**	.542**	.642**	.305**	.399**	.258**

** . Correlation is significant at the 0.01 level (1-tailed); * . Correlation is significant at the 0.05 level (1-tailed).

In a subsequent step correlation analyses between emotions and the factors that increase the probability of each of the main interactions were conducted; therefore the aggregate score for emotions which might increase the probability of liking is calculated and after that a correlation analysis is performed between the mean liking emotion score and each of the factors that might increase the probability of liking. The results indicate a significant positive correlation between emotions and factors that increase the probability of liking. The strength of correlation ranges from very weak to moderate but significant. The correlation coefficient range from .146 to .554. The lowest correlation can be found between the factor “*to stay in touch with other friends*” and emotions ($r = .146$, $p < .05$). The highest correlation can be found between emotions and “*If a post matches the opinion*” ($r = .554$, $p < .01$). The following table [10] shows the correlation between different factors that increase the probability of liking and emotions.

Table 10. Correlation between emotions and factors that stimulates liking

Factor	Mean
post is about field of interest (e.g. article about technological innovations)	.309**
to show that you are aware and happy for an update in your friend's life	.175*
to confirm that you have read a particular post	.339**
posts about special/ extraordinary things (exotic places, extreme sport events, etc.)	.377**
close relationship to the poster	.186*
to direct attention of your network to a post	.220*
if a post matches your opinion about a topic	.554**

outstanding achievements of friends	.361**
motivational posts	.394**
liking posts to establish a certain image of yourself	.229*
if the post is about an issue which you consider important	.409**
to stay in touch with a friend	.146*
if somebody posted something about/ with you (e.g. tags you in a picture/comment)	.197*
to support a good cause	.461**
to show something is important for you	.444**
if a post evokes a strong emotion	.406**

** . Correlation is significant at the 0.01 level (1-tailed); * . Correlation is significant at the 0.05 level (1-tailed).

The same procedure is performed for commenting with the following results:

The correlation coefficient range from .267 to .575. The lowest correlation can be found between “*to show you care about the poster*” and emotions ($r = .267$, $p < .05$). The highest correlation can be found between emotions and “*to show agreement with a post*” ($r = .575$, $p < .01$). The following table [11] shows the correlation between different factors that increase the probability of commenting and emotions.

Table 11. Correlation between emotions and factors that stimulates commenting

Factor	Mean
post is about field of interest (e.g. article about technological innovations)	.473**
to support a good cause	.525**
to show more commitment beyond support	.479**
close relationship to the poster	.311**
to show agreement with a post	.575**
to show disagreement with a post	.438**
if somebody posted something about/ with you (e.g. tags you in a picture/comment)	.279**
to stay in touch with friends	.296**
to stimulate others to post their opinions as well	.422**
to show people that are important to you that you care about them	.404**
some highly important events in your friends lives (graduation, wedding)	.384**
to show that you care about the poster	.267**
to provide a certain image of yourself	.368**
if a post evokes a strong emotion	.549**

** . Correlation is significant at the 0.01 level (1-tailed); * . Correlation is significant at the 0.05 level (1-tailed).

The results for sharing are as follows:

The correlation coefficient range from .311 to .547. The lowest correlation can be

found between “*to establish an image of yourself*” and emotions ($r = .311$, $p < .01$). The highest correlation can be found between emotions and “*if a post evokes a strong emotion*” ($r = .547$, $p < .01$). The following table [12] shows the correlation between different factors that increase the probability of sharing and emotions.

Table 12. Correlation between emotions and factors that stimulates sharing

Factor	Mean
content might be interesting for your friends/ network	.434**
important issues in general	.506**
posts that explicitly ask for help not from friends (e.g. somebody is missing, if votes are needed against an unfavorable law.)	.346**
to support and help friends (e.g. sharing their request for finding an apartment)	.364**
to establish an image of yourself	.311**
unique and extraordinary posts (e.g. exotic places, outstanding achievements of people)	.421**
to utilize one's network so that it can help (by sharing your forward the post to all people from your network so that they get aware and can react to the post)	.327**
to direct attention to a certain post (and thus issue, etc.)	.504**
if a post evokes a strong emotion	.547**

** . Correlation is significant at the 0.01 level (1-tailed); * . Correlation is significant at the 0.05 level (1-tailed).

Additionally the respondents are grouped into the following four age groups: 20-29, 30-39, 40-49, 50-59 and it is researched whether age or gender has a significant impact on the findings above. The results indicated that findings among different age groups and genders did not differ significantly; detailed analyses can be found in appendix 7.

Conclusions and Discussion

The necessary research was conducted to answer the initial research questions “How do Facebook users interact and what are the underlying reasons that trigger these interactions”.

Regarding the interactions, literature research suggests that likes, comments , shares, wall posts, groups, private messages, [instant] chat and birthday greetings are the main forms of interactions. Even though birthday greetings are realized through private messages, chatting or wall posts, it is a main feature, which Facebook tries to push [users receive daily notifications about the birthdays of friends] and literature has shown that it is important for creating, maintaining and strengthen weak ties to increase social capital; thus it can be treated as an interaction on its own. Qualitative Research suggested also likes, comments, shares, private messages, instant chat and birthday greetings; additionally interviewees also mentioned groups, creating a Facebook page for one's business and playing games on Facebook, wall posts were not mentioned in this regard; however both literature and the interviewees put more emphasis on liking, commenting and sharing. A possible explanation is that these interactions are easier to perform than for example private messages and that these are publicly seen, thus facilitating mass communication. Mass communication can readily increase value of one's bridging social capital and also have more value for marketers. As this research has a focus on how to acquire more followers, as defined in the introduction, interactions for “one-to-many communication” are essential and “one-to-one communication” interactions such as private messages were not considered important in this study.

To verify which interactions are essential to Facebook users, quantitative research

was carried out to test different interaction types. The results proved that liking was the most used interaction with 83% of the users, followed by groups [as passive users] with 70%, commenting with 65%, [joining] events with 62% and sharing with 40%. Due to these findings the hypothesis H_1 : “Liking is the most used interaction, commenting the second most and sharing the third most used interaction among the essential interactions.”, had to be rejected. Even though liking, commenting and sharing are crucial interactions, groups and events were proven to be substantial interactions, with groups being more important than commenting and events being more important than sharing. It has to be said that while groups is clearly a great way to enhance one-to-many communication which should be embraced in order to increase your followers as a company or brand or to increase the value of your bridging social capital as a user, events have one peculiarity. They also can be used as a efficient way of a one-to-many communication, however the frequency with which events can be used are much lower. This is an obvious fact, as likes, comments, shares and posts in groups can be made daily, while events can only be organized at times; therefore sharing can be considered more valuable. Having the above mentioned in consideration the most important interactions can then be summarized and ranked as following:

1. Liking
2. Groups
3. Commenting
4. Sharing
5. Events

After identifying the main interactions, the underlying reasons that trigger these interactions were researched. The literature review provided insights on general motivations and specific factors. Six main motivations for sharing were identified: relationships, self-fulfillment, supporting a good cause, information sharing

including, self-expression and entertainment. The specific factors that were named in the literature review can all be grouped into one of the six main motivations. These motivations, factors and additional insights, discovered during the interviews and related to why user utilize certain kind of interactions, were also tested through a survey. As both literature review and interviews suggest that liking, commenting and sharing are the most essential interactions, reasons for using groups and events were not tested in this research and can be subject to future research. The findings of the survey revealed that there are certain factors and emotions that do increase the probability of liking, commenting and sharing posts.

For liking the three most dominant factors are: outstanding achievements of friends, to show that you are aware and happy for an update in your friend's life, if somebody posted something about. Thus these are clearly related to the main motivations of relationships and self-fulfillment. The three most dominant emotions that were said to stimulate liking are Fun/Joy, Deep Respect/Impressiveness and Excitement.

For commenting the three most dominant factors are: some highly important events in your friends' lives, if somebody posted something about you and a close relationship to the poster. Thus the factors for commenting are the same as for liking and relate to the same main motivations of relationships and self-fulfillment. The three most dominant emotions are: Fun/Joy, Excitement and Deep Respect/Impressiveness.

For sharing the three most dominant factors are: content might be interesting for your network, to support and help friends and important issues in general. These factors relate to relationships, information sharing and supporting a good cause.

Hence for sharing the dominant factors differ from commenting and liking. The three dominant emotions are: Fun/Joy, Excitement, Deep Respect/ Impressiveness.

To verify the findings above a statistical analysis was conducted. Following insights were generated:

Liking is mostly correlated and thus stimulated by Wonder/ Surprise, Deep Respect/ Impressiveness and Fun/ Joy; commenting is mostly evoked by the emotions of Deep Respect/ Impressiveness, Wonder/ Surprise and Fun/ Joy; sharing is mostly elicited by Wonder/ Surprise, Deep Respect/ Impressiveness and Fun/ Joy. As can be seen in Table 9 in the descriptive research section, these correlations are moderate but significant. As the mean scores of the evaluation of the emotions within the survey are high and positive correlations were identified, ***H₂***: “Emotions trigger essential interactions.” can be accepted. It also confirms what was found in the literature research that positive emotions, especially awe [wonder/ surprise] are At the same time ***H₃***: “ Different emotions trigger different interactions.” has to be rejected; the reason is that the three dominant emotions are the same and the difference in the correlation coefficient among the these emotions is low.

It was also analyzed how emotions are correlated which each of the factors that increase the probability of liking, commenting and sharing. In the following, the statement with the highest correlations are illustrated:

liking: “if a post matches your opinion about a topic”, “to support a good cause”, “to show something is important for you”;

commenting: “to show agreement with a post”, “if a post evokes a strong emotion”, “to support a good cause”

sharing: “if a post evokes a strong emotion”, “important issues in general”, “to direct attention to a certain post (and thus issue, etc.)”

As can be seen, these statements differ from the ones which had the highest means as given by the participants of the survey. This discrepancy can have two possible explanations: either there are factors which highly increase the probability of some form of interaction without any relation to emotions; or participants perceive their own interaction behavior different from what it is and they rather like, comment and share content which is influenced by other factors than they have stated. To validate the right explanation, further empirical data is needed and might be subject to future research.

Limitations

One limitation was that no empirical Facebook data was available; this would greatly help to verify the findings of the quantitative and statistical part of this research

Future Researches

This research opens different topics that might be subject to future research. Thus it can be analyzed whether factors which stimulate interactions and are correlated with emotions, do stimulate interaction more than other factors which are not correlated with emotions; hence whether some factors which are not correlated with emotions at all are much more dominant than factors strongly correlated with emotions; furthermore it can be analyzed why groups and events are used and which factors and emotions do increase these two interactions. Another interesting topic, which is based on the findings of this research but goes beyond its' scope is whether users perceive their own Facebook behavior differently from what it

actually is; based on our findings a great extent of users state that their friends use Facebook very differently from how they do it, that they post too many details and just want attention even though they do not consider themselves of having these habits.

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